

ABSTRACT

Provided is a multimode optical transmission system capable of reducing an influence of multimode dispersion occurring when an optical signal is transmitted in multimode. Light sources (101 to 10m) respectively convert inputted electrical signals into a plurality of optical signals respectively having different wavelengths, and respectively output the plurality of optical signals. A wavelength multiplexing section (200) performs wavelength multiplexing of the plurality of optical signals outputted from the light sources (101 to 10m), and outputs a resultant signal as a wavelength multiplexed signal. A multimode optical transmission path (300) optically transmits the wavelength multiplexed signal in multimode. A mode processing section (400) extracts, from the wavelength multiplexed signal transmitted through the multimode optical transmission path (300), a plurality of optical signals each being in a mode having a particular wavelength and a particular propagation constant. Optical receiving sections (501 to 50m) receive the plurality of optical signals having been extracted, and convert the received optical signals into electrical signals.